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DOES MONEY HAVE A FUTURE?

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Abstract. Money is one of the greatest inventions of the human mind and an effective tool of globalization. At the same time, not only monetary globalization contributes to the process of economic globalization, but globalization itself influences the change in the order of functioning of money (globalization of money), reflected in the modernization of their functions. At the heart of such modernization are the phenomena of Ddestuffation and Dereification of Money. Such changes do not change the Essence of Money, but reflect the increasing Entropy of Money, which in the case of Technological Singularity can lead to the abolition of money (which communist utopians could not achieve) as a result of Money Singularity. And yet, it seems that the Law of the Indestructibility of Money will win again.

Key words: Money, Monetary functions, Monetary Globalization, Global Money, Money Entropy, Money Singularity.

Introduction. Money appeared in the Pre-Modern period of the development of human society and almost immediately became not only a tool for establishing economic relations within certain societies and states, but also one of the key elements of the Globalization process itself. The invention of money, without a doubt, is considered one of the most important innovations of Mankind. However, determining the priority regarding its appearance remains not only unresolved, but in principle an undecidable question of economic history. It depends not only on the presence or absence of written and archaeological evidence of this event, but also from the interpretation of the very concept of "Money". Most likely, the monetary/coin form of money (that is, "money" itself, as opposed to various forms of intermediary commodities) arose almost simultaneously in the East and the West in the so-called Axial Age , which corresponds to the life of the Buddha (623 –543 BC), Confucius (551–479) and Pythagoras (570–495). (10,*224*) But the real impact of the first money on Globalization processes was – after all – different. It can be said that Pre-Modern Globalization was characterized by the fragmentation of global money on a territorial basis. The three sources of money (Hellenic, Indian, and Chinese civilizations) existed quite separately for a certain time, as did their systems of economic exchange. At the same time, some of them remained an element of domestic economic life and were later "incorporated" into monetary systems of other origins ("Indian" and "Chinese" source – although to varying degrees). Instead, the Hellenic source played the role of "base", and later – and "standard" for monetary systems of different countries. Taking this into account, it can be considered that money arose at the junction of Europe and Asia within the Hellenistic civilization and spread further to the East and West through the mediation of: – primarily wars of aggression, which ensured the territorial expansion of money both in the victorious country (Persia, Rome , the Mongol Empire), as well as its new possessions. The development of trade relations also created opportunities for borrowing the idea of money by other peoples (first of all, along the Great Silk Road – through Central Asia, India, China). At the same time, the decisive role in the emergence of money was played not so much by the market, but by the state and its military needs. Moreover, the connection "state – money" turned out to be so strong that the minting of coins (issue of money), according to Max Weber (*24 ,963-965*) later became one of the basic prerequisites for the formation of the state.

By starting to use money in their lives, Mankind made one of the greatest innovations, which is on a par with the use of Fire or the invention of the Wheel. The role of money in the economic system of society is difficult to overestimate. In his reaction on John Mill note that there cannot be a more insignificant thing in the whole economy of society than money, the British economist William Carlile wrote: " Rather, it seems to me, money is the pivot of everything in economics. We cannot move a single step towards the elucidation of any of its problems without, etc. Not even could the thought of value have existed in a state of things in which there was no such thing as money." (*5 ,325-326*) So, what is money? "Standard substance"? General equivalent?

Thus, having won the competition with many simple equivalent commodities, precious metals – gold and silver – took the role of money. However, from the moment of its appearance the functioning of money in the economy requires an explanation of its nature, since without this it is difficult to understand and manage the mechanism of money circulation.

People have long been trying to solve the question of essence of money. British economist William Jevons noted: " Currency is to science of economy what the squaring of the circle is to geometry, or perpetual motion to mechanics." *(14,vi*) And although the self-educated French economist Marcel Labordère claimed in one of his letters to John Maynard Keynes that **Man will never be able to know what money is** any more than he will be able to know what God is *(6)*, research on this issue will continue in the future. Since people are forced to return to this question again and again not only because they are no longer satisfied with previous answers over time, but also because the very conditions and forms of money functioning are fundamentally changing, which is due to changes in economic structures. One of the last attempts to give a new answer to the question of what kind of money is the theory of money as the capital of a nation, put forward by Patrick Bolton and Haizhou Huang.*(3)* By their opinion, money can be seen as the equity capital of a nation, playing a similar role as stocks for a company. This innovative framework integrates the real and monetary sides of the economy, with a banking sector and debt at its core.

The issue of money is just as inexhaustible as the atom. More precisely, like the topic of human relations. It turns out that after centuries of various studies, we still do not know for sure exactly how (in detail) money appeared. There are only our logical assumptions.

Although, it would seem, everything is so clear. At first, people began to use equivalent commodities... But, in general, equivalent commodities are noticed only in those nations which never invented money. That is, most likely, this is a dead-end version of the development of commodity exchange, and money, after all, arose in a different way. And that is why, at first glance, it seems that money must exist: in this context, it is characteristic that the Strugatsky brothers in their famous fantasy novel "It's hard to be God" mention the existence of money on another planet (the society of which lives in the conditions of our Middle Ages), apparently, not even assuming the idea that an extra-terrestrial civilization might not have invented money.

At one time, the American writer Gertrude Stein claimed that money is the thing that separate man from animals. It seems, however, that in its expansion, money can overcome this barrier as well. The existence of money seems so natural that the British journalist and writer Jonathan Ledgard, a supporter of the idea of "digital self-sovereignty"[1]* – who is actively interested in the latest technologies and cares about the fate of "our smaller brothers" – suggests creating money in general for non-human beings – " animal money" or originally InterSpecies Money (probably meaning that in English the word "specie" means not only "animal species", but also "sound/gold coin"). In his opinion, "animal money", the unit of which will be the "Life Mark", should be issued by a special institution – the Bank for Other Species, the capitalization of which will be carried out by other central banks (following the example of the Basel Bank for International Settlements). Funds issued in this way will be distributed to the benefit of specific animals (identified, in particular, by chips implanted by trained biologists, by photographs, or otherwise) and then debited from their "personal accounts" and to the benefit of organizations, local communities or

[1]* **Self-sovereign identities** (SSI) are digital identities that are managed in a decentralized manner. This technology allows users to self-manage their digital identities without depending on third-party providers to store and centrally manage the data.

specific natural persons (of course, people) who provide the relevant animals with food, medical or other assistance. In this way, it is planned to transfer the charity work to the animal world into the strong hands of the market economy. Simply put, a monetary form of financing environmental protection activities of poor countries at the expense of rich countries is proposed. (*16)*

Also, as we can see, the space of monetary expansion is really limitless – both in depth and in width. And in the "fourth dimension" – Time. Of course, this is also only one of the theories.

Money Phenomenology

Money is one of the most important, complex and even mysterious phenomena of human life. Thus, money is a subject of study from the side of phenomenology.

Of course, speaking of phenomenology, we cannot bypass Hegel's research (*12)*. As one knows, Hegel did not consider the evolution of human societies to be infinite, but assumed that History moves towards a goal (which he calls "God" or "Idea") in the form of social organization that will satisfy the deepest and most fundamental expectations of humanity. After which the "end of History" will come – human activity, of course, will not stop, just there will be no further progress and simultaneously a breakaway from the human essence (*Entfremdung*) and a backdown of Man from himself (*Entdusserung*).

For Hegel, the American and French revolutions were the signals for the "End of History". He saw the embodiment of the goal in the Prussian state, that is, in the Victory of Liberalism. Instead, for Karl Marx, such a goal was communism. However, he gave victory to another term – the "End of Pre-History" of Humanity, believing that the real history – when people will be able to organize their lives in accordance with social laws (which they will finally know) – will only begin.

It was the allusion to these views that was published in 1992 by the famous work of the American sociologist Francis Fukuyama *(8*), who also saw "the End of History" in the final victory of liberal democracy (although he pointed out that the "end of history" does not come simultaneously all over the World, so that the period of wars and revolutions will continue). All this interests us in connection with a possible analogy regarding the "End of Money": in the Hegelian version, the end of market (chaotic, unmanaged) money comes in the form of the replacement of the Gold Standard with fiat money; for K. Marx, it is the disappearance of money as a measure of the value of commodities under communism; in the case of Fukuyama's "end of history", we can talk about the end of managed (fiat, central bank) money with its replacement by...

Actually, this is the question that will interest us the most.

Another German philosopher Georg Simmel considers money as a remarkable invention of mankind, which does not require additional care, but, on the contrary, gives people the power to own the World. *(21)* And Karl Marx, in his synopsis, known as "Economic-philosophical Manuscripts of 1844" (Ökonomisch-philosophische Manuskripte, 1844 – first published in 1932 after the death of K. Marx) notes: " The inversion and confusion of all human and natural qualities, the fraternization of impossibilities – the divine power – of money lies in its nature as the alienated, alienating and alienating species of man. It is the alienated wealth of manhood." (*17 ,562*)

From the point of Marx's view, the phenomenon of alienation means that the forces created by Man turn against him. In this way, the artificial world shows hostility towards people who lose control over the products of their activities. And the greater the human power over nature, the greater its alienation. At the same time, Marx distinguishes the alienation of a person from the results of his work, from the production process, from himself, herself, and from Society. The *alienation of money* with this approach appears only as a kind of alienation of a person from commodities (one of which is Money). The development of philosophical thought in this direction after Marx practically did not change this situation, despite the fact that the list of alienations has significantly expanded.

Nevertheless, Money and Cash Nexus played an important and noticeable role in the process of Economic Globalization. Moreover, Globalization itself has significantly influenced and continues to influence Money and Monetary Relations, changing them not only quantitatively, but also qualitatively. A decisive factor in the process of Money Evolution is its globalization. Despite the fact that Money has the inherent attribute of overcoming time and space, and therefore Money itself carries the embryo of Globalization.

The **Globalization of Money** is the process of the disappearance of borders in the functioning of money, which is reflected both in the growth of the role of money in the course of the development of globalization, and in the spread of the globalization component in the very essence of money.

In a certain way, this is really the process of "taking off national uniforms", which Karl Marx wrote about. (*18 ,222*) But now it is not about the fact that money appears on the international market in the form of ingots of precious metals, but rather on the contrary – about the fact that "national uniforms" under certain conditions become "international", so to speak, turn into a cosmopolitan camouflage, behind which already it is difficult to distinguish the nationality of modern international currencies.

The logic of Globalization requires that the Global Economy be matched by Global Money, but at this point Globalization entered the New Millennium uncompleted:

Table 1

State of Globalization of Economy and Money

	Non-globalized	**End of XIX century**	**End of XX century**	**Globalized**
Economy	National	National	World	World
Money	National	World (gold)	National (free convertible currencies)	World

Source: designed by the author

That is, the situation in the sphere of the Monetary Relations is "half-hearted" – it has a "mirror image" relative to the situation at the end of the 19th century, but it may not pass to the final phase (correspondence of the World Economy with World Money), as it ultimately did not happen at of the beginning of the 20th century, despite the seemingly victorious course of the Gold Standard and rapid Globalization. (Let us remind that Karl Marx wrote in one of his letters to Fredrich Engels in 1858: " Now, truly, the world market exists. With the opening of California and Japan to the world market, that's it, we have globalization" (Cit.by *2,150*) and even tried to delay its completion in every possible way writing his three-volume "Capital" – for which he received and long ago spent a significant cash advance – hoping for the collapse of capitalism). Nevertheless, the "logic of globalization" was then disrupted by the fear of nationalism.

The situation remains quite difficult and uncertain even now both at the national and international level, and in relation to the development of the economy in general and its monetary sector in particular. The choice, or rather the victory of one or another model of Global Money, will depend on which of them will more fully meet the requirements caused by the quantitative change in the quality of money as a result of the transition from numerous national currencies to a single Global Money.

One could see that the new clash of civilizations leads to polycentrism, the amalgamation of civilizations, which in the monetary sphere finds expression in currency wars (with China), Islamic banking and, in the future, possible manifestations of Dharmic and Taoist monetary traditions.

After all, "cryptocurrencies" and electronic money have already become part of an extensive monetary system, in which they more or less organically intersect and combine with other elements, even such archaic as gold coins.

If we adhere to the moderate anti-evolutionary version of historical dynamics (*8*), it should be recognized as impossible to transfer the biological model of evolution to the development of society, according to which new varieties simply replace old ones. In social development (including its economic component), something new mainly does not replace the old ones, but is built on top of it (according to Hegel's principle of "dialectical negation").

In fact, we could see such a process in the evolution of monetary relations in the process of Globalization, when various forms of monetary tokens (gold, commercial bank notes, central bank notes, fiat money, electronic money) do not disappear, being replaced by new ones, but are preserved, giving at the same time priority to new forms, more adequate to updated conditions of economic life. Thus, the accumulation of experience is accompanied by a change in the ratio of structural components and their importance for the functioning of the entire mechanism.

Fig. 1. Money Inflation

Source: (flyleaf, 7).

Such changes are taking place under the influence of a number of recent phenomena in the field of monetary circulation, – from financialization to digitalization, – the common feature of which, however, is the explosive quantitative growth of all monetary parameters.

In fact, it is about the same inflation that Alexander Del Mar had in mind: not just "swelling" of the money supply, but its "swelling" due to new components. More precisely, even not "swelling", but "inflating" – if we take into account that as an illustration of the inflationary process, he depicted a "balloon". At one time, the French philosopher René Guénon (*11*) presented his explanation of the crisis of modern civilization, indicating as one of the main manifestations of this crisis the ever-increasing superiority of quantitative characteristics over qualitative ones. And observing the quantitative growth of the concept of money, you can see that money exceeds everything else, and the modern world has loudly admitted that it has nothing more important than money.

Thus, there is an evolution of inflation (swelling) of Global Money – quantitative and qualitative one. **Money** by its nature is always global one (in the fetus, this is its implicit characteristic or feature,) and that is why it **is the most effective globalizer**.

Another, more neoteric option to illustrate this evolution could be the model of the “Expanding Universe” as a result of the “Big Bang”. In this case monetary functions begin to be performed to a greater or lesser extent by various financial moneyness instruments – gold, bank notes, financial derivatives, cryptocurrencies... Such a "big explosion" also causes corresponding qualitative transformations, including the emergence of "cryptocurrency". (See: *15*)

All these changes should to be reflected in the order in which money performs its functions, which, reflect the Essence of Money in the specific conditions of its functioning. Therefore, first of all, we will turn to the analysis of changes in monetary functions in order to try to find out whether there are any cardinal changes that may indicate essential changes of the Money itself.

Modern money, obviously, is not classical money at all, which acted as a means of exchange of products in accordance with their value.

Modernization of Money Functions

In the conditions of a market economy (regardless of the degree of its development and globalization), money remains an absolute necessity. But the categories "money" and "monetary commodity" are not the same, as is well known. And the monetary commodity as money was only a real reality (for *laissez faire* capitalism), which, on the one hand, was really necessary, and on the other – accidental. This reality could not be different in content, since it is determined by the essence of the relations fundamental to this category, but it can be different in form. Monetary *commodities* (gold and silver) are only a *separate* manifestation of the *general* concept of "Money".

In this regard, from our point of view, the category "monetary commodity" includes an element of both general (money) and special (commodity). And this duality of the basis could not but manifest itself in the form of *duality* of all the functions performed by the monetary commodity. Thus, all monetary functions performed by gold, on the one hand, were indeed the functions of money, but on the other hand, they were also the functions of commodity.

As long as the concepts of "gold" and "money" were identical, this duality remained hidden. But once the demonetization of gold took place, the commodity and monetary functions are separated. Gold, being an ordinary commodity, continues to perform (or can potentially perform) a number of functions inherent in it as a commodity. ***Money functions in their pure, not "gilded" form continue to be performed by money as a special commodity***.

But monetary functions are performed in new, modernised way.

Dereification of the function of *Measure of Value*

The fulfilment of the function of a measure of value in modern conditions not by gold, but by fiat/credit money is, without a doubt, the most controversial and theoretically quite complex issue in the discussion about Modern Money. It can be called, perhaps, even the main issue of discussion due to the fact that it is precisely this function that is fundamental one for money However, in the case of classical money, although gold was a value equivalent, and therefore also a measure of value, what was important for money was not what it could measure, but that it could *co*-measure different values (make them *commensurated* ones). Due to the fact that social relations do not immediately reach the required level of development, initially the function of a measure of value is performed by such money that guarantees universal recognition by itself, by its value – namely, gold. As the level of socialization of production grows and the state strengthens, the need to use the cumbersome “golden mechanism” for pricing disappears. With the demonetization of the “yellow metal”, the movement of commodity prices is completely detached from their former gold basis.

It has become obvious that changes in the value of goods do not correspond with the movement of their “gold prices”, and the economic reality of today has become not “gold” prices, but credit-money prices. This is quite logical, since in reality money now is not gold (or any other money, which is at the same time not only a *special*, but also an *ordinary* commodity), but fiat/credit money. This money isn’t just representatives of real money in circulation. It is itself a monetary commodity, exclusively *special* commodity.

Gold, even in modern conditions, has not lost its ability to perform the function of a measure of value, since the properties that allowed this metal to perform it earlier have not undergone any changes. But there were important changes in the external conditions for the functioning of gold as money. These changes led to the loss of the yellow metal's ability to serve as a measure of value. In other words, in the economy of modern capitalism, the ability of gold to act as a measure of value is *formal,* not *real*.

As known, commodities come into circulation already having a value. And in the process of exchange, the need arises not to determine exactly what value is contained in this or that product, but to find out how many times it is more or less than the value contained in the product offered for exchange. Consequently, the function of money is ultimately the commensuration of values, and the function of the measure of values is only its particular manifestation at a certain stage of development of production relations.

The mechanism for measuring values, carried out through fiat money that have only a conditional value, was presented by Rudolf Hilferding in his well-known interpretation of the formula of the so-called "law of monetary circulation" ("The law that the quantity of the medium of exchange is determined by the sum of the prices of commodities in circulation and the average velocity of circulation of money…").(*13,37*)

The value of a commodity cannot be measured in gold. The ratio in which goods are exchanged for each other (including exchange for gold as ordinary commodity), – i.e., their exchange value, – is determined spontaneously in the conditions of the market economy. As soon as the exchange of goods takes on a certain regularity, goods enter the market, having not only value, but also exchange value, completely independent of whether it will be measured in money or not. It turns out that for pricing, not only the value of money, but also the value of goods does not matter. *Only their exchange value is important*. And since goods enter the market with an exchange value, determining the value of a monetary unit is no longer difficult.

Thus, the value of all fiat/credit money in circulation is nothing more than the exchange value of all commodities. It is precisely the credit and fiat banknotes, which together represent the exchange value of all goods, that are now the basis of pricing. So, that the price of any product is determined by the ratio C/C`` (where C means cost production or value of any simple commodity and C`` – cost of production or the value of the monetary unit itself, i.e. its *exchange value,* but the value of the material from which it is made). The *exchange value* (value) of a unit of an instrument of circulation turns out to be dependent on the average level of exchange values that goods possess already by virtue of the fact that they are produced under the conditions of commodity production, when they (exchange values) turn from possibility in fact, with necessity (i.e. inevitably). The prices of goods depend on the exchange value of the instruments of circulation, i.e., ultimately, they are a reflection of value.

The acting of the Law of value is thus in no way violated, since the sum of commodity prices is still equal to the sum of commodity values. However, the mechanism for establishing such equality is radically changing. If previously, in the case of monetary circulation, it was achieved exclusively due to the action of the hoarding mechanism, i.e., due to changes in the amount of money in circulation, now, in modern conditions both elements become elastic: as the numbers of monetary units in circulation, as the value (exchange value) of a monetary unit.

Accordingly, changes continued with the mechanism of performing its functions with money. The function of commensurement of values is manifested through the function of a medium of circulation. And since the virtualization or dereification of the means of circulation itself is gradually taking place, the co-measurement function is also dereificated (i.e. it is carried out virtually).

Convergence and dereification of functions of *Medium of Circulation and Means of Payments*

Unlike the function of a Measure of Value, the performance of fiat money as a Medium of Circulation did not cause much controversy. There isn't, probably, any economist with a serious reputation who would think that returning to gold standard is a really wise idea. The displacement of gold by fiat money received its further continuation in the development of a relatively new phenomenon – the process of removing from circulation a significant part of carriers of monetary functions (banknotes, checks, etc.). And the further IT development (in particular, phone-banking with its subsequent modification in the form of mobile-banking, cryptocurrency, CBDC etc.) only strengthened the transition to a "cashless society".

The era of "electronic money" or, as author has proposed to call it, the "*Destuffation of Money*"[2]** has begun – that is, the disappearance of the physically embodied (stuff) form of money signs. And today we can claim that the purely technical process of destuffation of money signs is becoming more and more clear as an exercise of a more significant transformation in the form of dereification of the very function of money as a Medium of Circulation.

Thus, performance of fiat money as a Means of Payments becomes possible precisely because it becomes a Measure of Values and the basis of pricing, and also functions as a Medium of Circulation. In other words, in modern conditions, fiat (credit) money becomes an independent Means of Payments because the entire course of development of economic relations turns it into an exchange equivalent, the sense of which is the Meaning of Payments as such.

It has to be noted as well, that complex derivative instruments were created in order to reduce the riskiness of market operations in conditions of uncertainty and high price volatility. In this regard, the analysis and consideration of monetary policy perspectives is an important area of study of various factors of activity in the derivatives market. Money market derivatives are generally highly liquid, allowing traders to use them cheaply, quickly and with minimal price impact. This feature provides a connection between monetary policy and the turnover of derivatives.*(23,65)* According to Dick Brian and Michael Rafferty, derivatives are, in fact, "*behind the scenes*" *money*, which ensure that different forms of assets (and money) are not commensurated by government regulation (for example, regarding a fixed exchange rate), and with the help of competing forces. (*4,153*)

Dereification of the *Instrument of hoarding* function

The function of a Means of Hoarding is not fundamental in the system of monetary circulation. Everyone knows well that hoarding was formed and are formed by accumulating not only gold (or other monetary commodity), but also other high and stable values, which are primarily precious metals and gem stones. The only thing that remains unchanged is that among their components there is necessarily a commodity that functions as money, and that it is never their only component. That is, *money is not only an abstract value, it is not only a means of hoarding. But hoarding (treasures) are not only money.*

All of the above allows us to conclude that hoarding by their nature are not money, but money, due to its properties of a special commodity-equivalent representing an abstract value, is hoarding (treasure). This function is one of the specific functions of money, because hoarding act as supply and output channels of money in circulation. From the point of view of monetary circulation, hoarding is primarily the accumulation of medium of circulation. One can say that the specific, technical function of money is the accumulation of monetary reserves. The function of accumulation again becomes the function of real (now – credit) money, but its content is the accumulation not of "deadened" (immobilized) value, but of a completely different form of social wealth – loan capital. Its accumulation is the regulator of the modern monetary system based on credit. Credit money as would take the baton from gold in the matter of capital accumulation.

Dereification and separation of functions of *World Money*

In the conditions of Monetary Globalization, World Money is subject to general modernization in the form of separation, that is, split, disintegration of previously mixed functions. More specifically, we are talking about the internationalization of the sub-functions of World Money: previously they were performed at the international level on the basis that the monetary commodity (gold) performed

[2] ** The term was coined by the author more than forty years ago to denote the process of disappearance of material (physical) carriers of monetary functions. (*19,48*)

them at all national levels, and therefore, according to the principle of consensus, it functioned both as a measure of value and as a means of payment, and as a means of accumulating wealth (hoarding) at the international level as well. In the new conditions, national credit money performs the specified functions only on the relevant national markets and the sub-functions of World Money can no longer be performed by them according to the principle of consensus. Now they perform in their pure, international form.

a*) sub-function of the international co-measurement of values*

So far, in accordance with the practice that has developed in the world market, prices are mostly set in only a few currencies (first of all, in US dollars), depending on the role of the issuing country in the market of a given product (for example, the presence of international commodity exchanges), as well as taking into account the practice of making payments – in order to minimize currency risks in case of incompatibility between the currency of the price and the currency of payment.

That is, goods, the value of which is measured in national credit money, enter the international market, where they are compared through the cross-rate to the international currency of the price (say, the dollar), after which the total price is averaged on the basis of competition and the world price is established (which is converted into national currencies, again at the existing exchange rate).

b) sub-function of the international means of exchange

It is necessary to take into account the fact that in international commodity circulation, gold and silver acted not as a medium of circulation, but as a general means of exchange, which functioned only simultaneously in both developed forms – a means of purchase and payment. Moreover, the relationship between them on the world market becomes reversed, that is, the function of the means of payment is the leading one – since in foreign trade, the direct exchange of goods for money is relatively rare at the same time: most often it is separated in time and, thus, the basis of payments is credit (loan) agreement.

c) sub-function of the international materialization of wealth in general

Gold is still part of the international liquid reserves in quite significant amounts (especially being listed at the market price). But in the composition of foreign exchange reserves, credit money plays a dominant role, mainly in the form of government bonds denominated in US dollars. Such a structure is based on the role that belonged to the US economy in the global market. We say "belonged" because some weakening of the economic position of this country in recent years has led to a vivid manifestation of the contradiction inherent in the use of the dollar as a reserve currency. This is nothing but a manifestation of the contradiction between form (national currency) and content (world money).

They tried to solve the problem by increasing the share of international liquid funds – units of account such as SDR and ECU. However, not too much use of them as a means of international settlements, in the end, forced to actually abandon this idea. So, the problem is still not solved.

End of Money?

With such understanding, *there is no modification of monetary functions* – i.e. modification, transformation of these functions into something new, which has certain additional new properties. Simply, since the monetary commodity gold is replaced as money by credit and fiat money, the form of performance of monetary functions also changes, that is, *their modernization occurs* – the depth and essence of the function does not change, but it is performed in a way that meets the new conditions, the conditions of Late Modern Globalization. And such *Modernization* takes place, as we will try to prove below, in the form of *dereification*, *not modification* – that is, changes that overcome, get rid of reification and return functions to their abstract quality, which until now was hidden by the material shell of monetary material. It is with this change in the form of performance of monetary functions that new phenomena in the process of functioning of money are defined by us as the further **evolution of money.**

At the same time, the Twentieth century was marked for money by practical attempts to realize the utopian dreams of abolishing money. It is not only about the promise of the Russian Bolsheviks to build public latrines out of gold in the largest cities of the world. The Cambodian “Red Khmers” (*Khmer Kror-Horm*) did abolish money (albeit not for long) during their bloody tyranny in the late Seventies. (*19*)(*22*) But the most advanced was, of course, the Soviet project of *modifying* monetary functions – which was supposed to lead to their abolition. As one of the ideologists of such a policy explained, under *real* socialism "... there is an intensive process of transformation of commodity production into non-commodity, and money into non-money". (*1,56*) Accordingly, monetary functions were gradually transformed into non-monetary ones: the function of a measure of value became a function of direct accounting of socially necessary time; the function of the means of circulation is the function of direct distribution of material goods; the function of the means of payment – in the function of the means of distribution according to work; the function of the means of accumulation (the former Marx function of the means of creating treasures) is the function of the means of saving labor income. Under socialism, of course, the fundamentally new nature of commodity-money relations determines the new nature of Money. Thus, it was argued that ***under socialism, money is not money*** not only in the quantitative, but also in the qualitative sense. Which, in the end, corresponded to reality.

However, despite all attempts to eliminate money, its complete disappearance was never achieved, although, as we have seen, its functions were significantly undermined. And therefore, due to the *law of the indestructibility of money* in the countries of "real socialism", the process of *palingenesis*[3]*** *of money* had to inevitably begin.

And this *Restoration of Money,* i.e. the Integration of Post-Communist countries into the Global Monetary World really took place.

But does the collapse of the communist attack on money mean that there is no longer any prospect of its abolition?

Analyzing the development of money and the monetary system, one cannot fail to see the tendency of gradual growth of chaos as a result of the deviation of the monetary system and its subsystems from the reference (classical) state, when the deviation is manifested in a decrease in the level of organization, efficiency of functioning, rates of development of the system, etc. In other words, one can clearly see the process of **Monetary Entropy**. In turn, monetary entropy has two components: *entropy of money* and *entropy of the monetary system*. The functioning of money is chaotic as the above-described modernization of its functions takes place. The entropy of the entire monetary system increases as the transition from minting coins from a clearly defined, standard monetary commodity (gold, silver) to system of currency issue by central and commercial banks, and then to the emergence of decentralized cryptocurrencies.

At the same time, as evidenced by the practice of natural development, the increase in entropy does not lead to a complete collapse (“*heat death*”), since countermeasures (the so-called "negative entropy" or negentropy) gradually begin to act.

Thus, we meet the problem of predicting the future transition to a new state of negentropy. In other words, understanding what transformations should be expected in the nature of money and in the international monetary system.

However, moving on to the question of predicting the future of money, it should be noted that there is an opinion that soon money will simply become a relic of the past and disappear altogether. In this case, we are not talking about Communist Utopias, but about the fact that the probable technological singularity[4]*** will have as one of its consequences the abolishing (more precisely, the meaninglessness of existence) of Money as an economic category. In other words, ***Money Singularity –***

[3]*** **Palingenesis** (from the Greek *palin* – again, back and *genesis* – origin, birth) – rebirth.
[4] *** **Technological singularity** is a hypothetical moment in the future when technological development becomes, in principle, uncontrollable and irreversible, which gives rise to radical changes in the nature of human civilization

hypothetical moment in the future when development of Money becomes, in principle, uncontrollable and irreversible – will be the "end of the history of money" by analogy with the concept of Fukuyama: for the next "thesis" in the "spiral of development" there will be no corresponding "anti-thesis", and therefore no "synthesis" will occur.

Of course, we do not know 1) whether the technological singularity will come at all and 2) what kind of consequences it may lead to. One of the possibilities of the technological singularity is the emergence of a post-scarcity society, in which there will be a surplus of resources and the needs of every member of society will be fully satisfied (a variant of capitalist communism, when even an unconditional basic income will appear to be an unacceptable minimum for satisfying needs). And then, indeed, the need for money will disappear as a means of distributing life resources among people. And even after the singularity comes, a fundamental change in values can take place shift from material benefit (represented by money) to other values such as knowledge, creativity or other elements that cannot be quantified in monetary terms.

But "post-singular communism" may turn out to be just as much of a phantasm as its predecessors: if the singularity doesn't lead us to a point where resources are unlimited and scarce, then the need for a system to manage the distribution of those resources will persist. In this case, money will continue to serve as a medium of exchange, a unit of account, and a store of value.

In any case, the change will not happen overnight, so there will most likely be a transition period during which Mankind will still use money, and it is quite possible that the concept will simply evolve and not disappear completely. In particular, thanks to the development of Artificial Intelligence and technology, there may be a shift towards a more decentralized and autonomous society, where traditional centralized financial systems will become obsolete. In a world dominated by super-AI, the economic structure may be completely different and incomprehensible to human beings. Artificial Intelligence can operate on the basis of algorithms and principles that optimize the allocation of resources and productivity in a way that renders traditional concepts such as "Money" obsolete.

However, no matter what the AI thinks about this, the decision will be made by a Man.

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